5 | UL Installation Information

Underwriters Laboratories Conditions of Acceptability – When installed in the end-use equipment, consideration should be given to the following:

1. The wiring terminals are suitable for factory wiring only.
2. This device is to be mounted in a suitable enclosure in the end-product.
3. This device is suitable for operation at a maximum surrounding air temperature as described in the documentation.
4. These devices are intended for use in a pollution degree 2 environment.

- Input Voltage: 10 – 30 VDC
- Input Power: 1.2 Watts
- Wire Range: 12 – 24 AWG
- Tightening Torque: 4 kgf-cm
- Temperature rating of field installed conductors is 105 °C minimum, sized for 60 °C ampacity.
- Use copper wire only.
- Maximum surrounding ambient air temperature 80 °C.
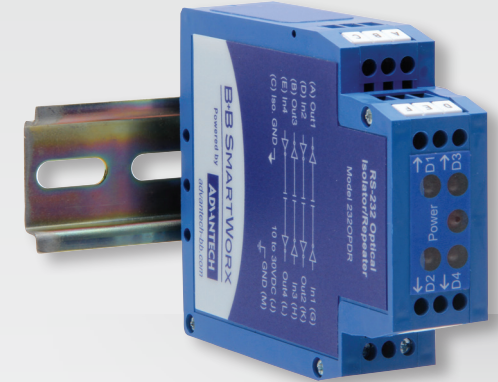
+ Recommended Accessories

Model MDR-40-24
Power Supply

Model DR25FTB
Terminal Block to DB25 Female DIN Rail Mountable Adapter

+ QUICK START GUIDE

Model 232OPDR
Optically Isolated RS-232 Repeater

Before you begin, be sure you have the following:

+ 232OPDR
+ 10-30 VDC, 1.2W Power Supply
+ Serial Cable (optional)

Fast and easy on the web: www.advantech-bb.com

Product Overview

Top View

Bottom View (Power Side)

Terminal Block Connectors A – F

Terminal Block Connectors G – M

D	E	F
G	H	J
A	B	C
K	L	M

Connect V+ to J

Connect V- (Gound) to M

+ 10 to 30 VDC, 1.2 W

(A) OUT1 — IN1 (G)
(D) IN2 — OUT2 (K)
(B) OUT3 — IN3 (H)
(E) IN4 — OUT4 (L)
(C) ISO. GND — 10 to 30VDC (J)
GND (M)

RS-232 Isolated Repeater - Two sets of data lines with control signals.

DTE Device

Signal	Terminal
RD	A
TD	D
CTS	B
RTS	E
GND	C

DCE Device
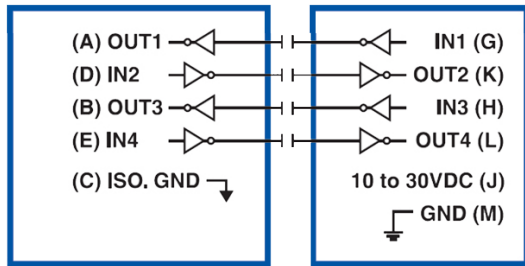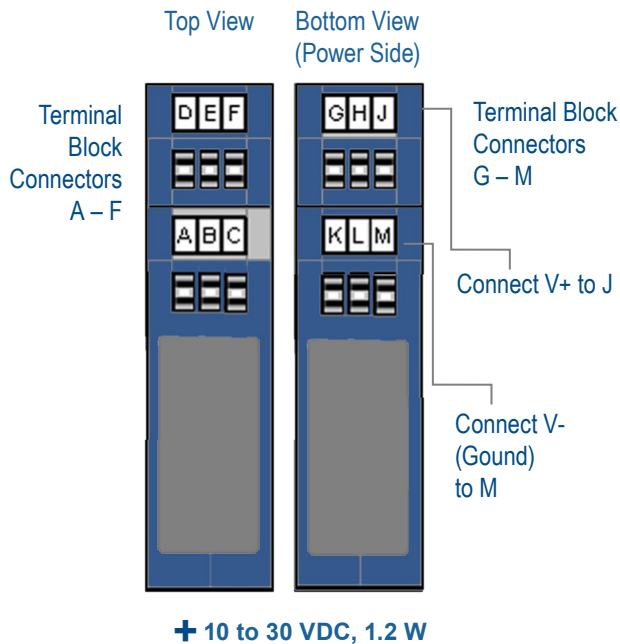
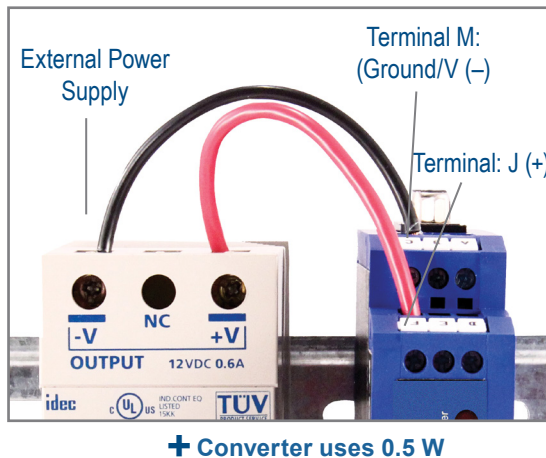| Terminal	Signal
G	RD
K	TD
H	CTS
L	RTS
J	+V
M	GND/-V
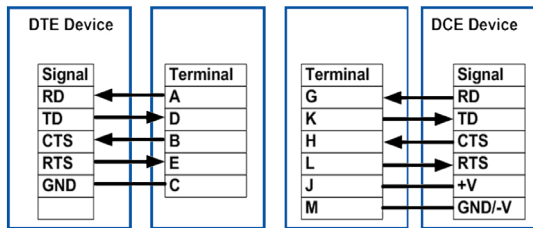
RS-232 Isolated Repeater - Two sets of data lines with control signals.

1 | Connect Your Device

Terminal Block	Signal
A	Output 1
B	Output 3
C	Isolated Ground
D	Input 2
E	Input 4
F	Not Connected
G	Input 1
H	Input 3
J	10 to 30 VCD
K	Output 2
L	Output 4
M	Power Supply Ground

2 | Connect Your Power Supply

External Power Supply

Terminal M: (Ground/V (–)

Terminal: J (+)

-V   NC   +V
OUTPUT   12VDC 0.6A

+ Converter uses 0.5 W

3 | Test Setup

DTE Device

Signal	Terminal		Terminal	Signal
RD	A		G	
TD	D		K	
CTS	B		H	
RTS	E		L	
GND	C		J	+V
			M	GND/-V
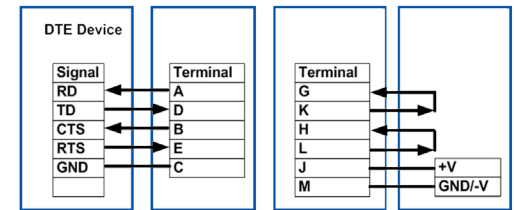
Connect a PC to the DTE side.

Place a jumper between Terminal G & K and Terminal H & L.

Using HyperTerminal or a similar program, connect to the appropriate COM port.

Turn off Hyper Terminal local echo.

Transmit data. The same data should be returned. Data LED will indicate data being transmitted.

4 | Troubleshooting

Connecting two devices using RS-232
Usually inputs are connected to inputs and outputs to outputs. People do not realize that there are two types of RS-232 ports, DTE and DCE type, and that the signal names and pin numbers are the same, but signal flow is opposite. The pin labeled Tx can be input, and Rx can be output.

The two ports types are complementary. The Output signals on a DTE port are Inputs to a DCE port, and Output signals on a DCE port are Inputs to a DTE port. The signal names match each other and connect pin for pin.

Data LEDs
D1 activity shows output on terminal "A"
D2 activity shows output on terminal "K"
D3 activity shows output on terminal "B"
D4 activity shows output on terminal "L"